

**AMENDED CLAIMS**

**[Received by the International Bureau on 07 September 2005 (07.09.05):  
original claims 1, 14, 18 and 23 amended; remaining claims unchanged; (4 pages)]**

**+ STATEMENT****What is claimed is:**

1. A composition prepared from a plurality of materials comprising a Class 1 member, a Class 2 member, and a Class 3 member, said Class 1 member contributing approximately 0.1 percent to approximately 10 percent by dry weight of said composition, said Class 2 member contributing approximately 1 percent to approximately 10 percent by dry weight of said composition, and said Class 3 member contributing an amount up to a balance by dry weight of said composition, wherein the composition releases heat when an ambient temperature is about 5°C to about -15°C.
2. The composition of claim 1, wherein the composition is biodegradable.
3. The composition of claim 1, wherein the composition comprises particles.
4. The composition of claim 1, wherein the composition comprises solid particles.
5. The composition of claim 1, wherein the composition comprises nanoparticles.
6. The composition of claim 1, wherein the composition comprises particles having a molecular weight of from about 20,000 to about 50,000,000.
7. The composition of claim 1, wherein the composition comprises particles having an average diameter of from about 2 nanometers to about 1000 nanometers.
8. The composition of claim 1, wherein the composition comprises particles having an average diameter of from about 200 nanometers to about 500 nanometers.
9. The composition of claim 1, wherein the composition comprises particles having an average diameter of from about 100 nanometers to about 200 nanometers.
10. The composition of claim 1, wherein the composition comprises particles having an average diameter of from about 2 nanometers to about 200 nanometers.

11. The composition of claim 1, wherein the composition comprises particles having an average diameter of less than about 1000 nanometers.
12. The composition of claim 1, wherein the composition comprises particles having an average diameter of less than about 500 nanometers.
13. The composition of claim 1, wherein the composition comprises particles having an average diameter of less than about 200 nanometers.
14. The composition of claim 1, wherein the composition releases heat when an ambient temperature is about 3°C to about -14°C.
15. The composition of claim 1, wherein the composition releases heat when an ambient temperature is about 1°C to about -15°C.
16. The composition of claim 1, wherein the composition releases heat when an ambient temperature is less than about -5°C.
17. The composition of claim 1, wherein the composition releases heat when an ambient temperature is less than about -10°C.
18. A mixture comprising a polymer composition prepared from a plurality of materials comprising a Class 1 member, a Class 2 member, and a Class 3 member, said Class 1 member contributing approximately 0.1 percent to approximately 10 percent by dry weight of said polymer composition, said Class 2 member contributing approximately 1 percent to approximately 10 percent by dry weight of said polymer composition, and said Class 3 member contributing up to a balance by dry weight of said polymer composition, wherein the composition releases heat when an ambient temperature is about 5°C to about -15°C.
19. The mixture of claim 18, further comprising water.

20. The mixture of claim 18, further comprising water, said water contributing approximately 90 percent to approximately 99.5 percent of a total weight of said mixture.
21. The mixture of claim 18, further comprising a soybean protein composition.
22. The mixture of claim 18, further comprising one or more components selected from a group comprising micronutrients, macronutrients, pesticides, insecticides, herbicides, rodenticides, fungicides, biocides, plant growth regulators, fertilizers, microbes, soil additives, adhesion promoting-agents, surfactants, and freezing point modifiers.
23. A method comprising a plurality of activities comprising:  
    providing a mixture comprising water and a composition prepared from a Class 1 member, a Class 2 member, and a Class 3 member, said Class 1 member contributing approximately 0.1 percent to approximately 10 percent by dry weight of said composition, said Class 2 member contributing approximately 1 percent to approximately 10 percent by dry weight of said composition, and said Class 3 member contributing an amount up to a balance by dry weight of said composition, wherein the composition releases heat when an ambient temperature is about 5°C to about -15°C; and  
    coating at least a portion of a surface of an object with the mixture.
24. The method of claim 23, wherein the object is a plant material.
25. The method of claim 23, wherein the object is a human.
26. The method of claim 23, wherein the surface is human skin.
27. The method of claim 23, wherein the object is an animal.
28. The method of claim 23, further comprising spraying the mixture toward the surface.

- 29. The method of claim 23, further comprising preventing formation of ice on the surface.
- 30. The method of claim 23, further comprising preventing dehydration from the object.
- 31. The method of claim 23, further comprising reducing dehydration from the object.
- 32. The method of claim 23, further comprising reducing heat transfer via the surface.
- 33. The method of claim 23, further comprising reducing mass transfer via the surface.
- 34. The method of claim 23, further comprising reducing kinetic energy transfer to the object.